Bharathram Ganapathisubramani

List of Publications by Year
in descending order

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160 papers	5,131 citations	94269 37 h-index	102304 66 g-index
163 all docs	163 docs citations	163 times ranked	2381 citing authors

#	Article	IF	Citations
1	Time-averaged velocity and scalar fields of the flow over and around a group of cylinders: a model experiment for canopy flows. Flow, 2022, 2, .	1.0	4
2	The far wake of porous disks and a model wind turbine: Similarities and differences assessed by hot-wire anemometry. Journal of Renewable and Sustainable Energy, 2022, 14, .	0.8	8
3	Unsteady forcing of turbulence by a randomly actuated impeller array. Experiments in Fluids, 2022, 63, 1.	1.1	5
4	Tailoring wind turbine wake models to incoming free-stream turbulence. Journal of Physics: Conference Series, 2022, 2265, 022076.	0.3	0
5	Linearised Reynolds-averaged predictions of secondary currents in turbulent channels with topographic heterogeneity. Journal of Fluid Mechanics, 2022, 944, .	1.4	3
6	Effects of a trailing-edge flap on stall cell characteristics of a NACA0012 wing. Flow, 2022, 2, .	1.0	1
7	Effects of aspect ratio on rolling and twisting foils. Physical Review Fluids, 2021, 6, .	1.0	3
8	Non--type behaviour of roughness when in-plane wavelength approaches the boundary layer thickness. Journal of Fluid Mechanics, 2021, 911, .	1.4	11
9	Revisiting rough-wall turbulent boundary layers over sand-grain roughness. Journal of Fluid Mechanics, 2021, 911, .	1.4	8
10	Scale interactions in velocity and pressure within a turbulent boundary layer developing over a staggered-cube array. Journal of Fluid Mechanics, 2021, 910, .	1.4	7
11	Data-driven sparse reconstruction of flow over a stalled aerofoil using experimental data. Data-Centric Engineering, 2021, 2, .	1.2	17
12	Leading edge serrations for the reduction of aerofoil self-noise at low angle of attack, pre-stall and post-stall conditions. International Journal of Aeroacoustics, 2021, 20, 130-156.	0.8	11
13	Scalings for rectangular synthetic jet trajectory in a turbulent boundary layer. Journal of Fluid Mechanics, 2021, 915, .	1.4	5
14	Characteristics of drag due to streamwise inhomogeneous roughness. Ocean Engineering, 2021, 223, 108632.	1.9	16
15	Uniform-momentum zones in a turbulent boundary layer subjected to freestream turbulence. Journal of Fluid Mechanics, 2021, 915, .	1.4	7
16	The effects of free-stream turbulence on the performance of a model wind turbine. Journal of Renewable and Sustainable Energy, 2021, 13, .	0.8	16
17	Turbulent boundary-layer flow over regular multiscale roughness. Journal of Fluid Mechanics, 2021, 917, .	1.4	14
18	Interaction and vectoring of parallel rectangular twin jets in a turbulent boundary layer. Physical Review Fluids, 2021, 6, .	1.0	7

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19	The effect of cleaning and repainting on the ship drag penalty. Biofouling, 2021, 37, 372-386.	0.8	9
20	Volumetric flow characterisation of a rectangular orifice impinging synthetic jet with single-camera light-field PIV. Experimental Thermal and Fluid Science, 2021, 123, 110327.	1.5	10
21	Fin sweep angle does not determine flapping propulsive performance. Journal of the Royal Society Interface, 2021, 18, 20210174.	1.5	9
22	Settling behaviour of thin curved particles in quiescent fluid and turbulence. Journal of Fluid Mechanics, 2021, 922, .	1.4	2
23	Dynamic mode decomposition-based reconstructions for fluidâ€"structure interactions: An application to membrane wings. Journal of Fluids and Structures, 2021, 104, 103315.	1.5	5
24	Mass transfer from small spheroids suspended in a turbulent fluid. Journal of Fluid Mechanics, 2021, 929, .	1.4	1
25	Development of a rapid plasma decontamination system for decontamination and reuse of filtering facepiece respirators. AIP Advances, 2021, 11, 105311.	0.6	6
26	Surface Pressure Reconstruction from Phase Averaged Deflectometry Measurements Using the Virtual Fields Method. Experimental Mechanics, 2020, 60, 379-392.	1.1	2
27	The near-field of a lab-scale wind turbine in tailored turbulent shear flows. Renewable Energy, 2020, 149, 735-748.	4.3	9
28	Disks settling in turbulence. Journal of Fluid Mechanics, 2020, 883, .	1.4	14
29	Deflected wake interaction of tandem flapping foils. Journal of Fluid Mechanics, 2020, 903, .	1.4	24
30	Response of the temporal turbulent boundary layer to decaying free-stream turbulence. Journal of Fluid Mechanics, 2020, 896, .	1.4	8
31	Comparison between object and image plane cross-correlation for stereoscopic PIV in the presence of pixel locking. Experiments in Fluids, 2020, 61, 1.	1.1	5
32	PIV-based pressure estimation in the canopy of urban-like roughness. Experiments in Fluids, 2020, 61, 1.	1.1	10
33	Influence of three-dimensionality on propulsive flapping. Journal of Fluid Mechanics, 2020, 886, .	1.4	32
34	Effects of heterogeneous surface geometry on secondary flows in turbulent boundary layers. Journal of Fluid Mechanics, 2020, 886, .	1.4	42
35	Reconstruction of surface-pressure fluctuations using deflectometry and the virtual fields method. Experiments in Fluids, 2020, 61, 1.	1.1	5
36	Wakes of wall-bounded turbulent flows past patches of circular cylinders. Journal of Fluid Mechanics, 2020, 892, .	1.4	15

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37	Full-Field Surface Pressure Reconstruction Using the Virtual Fields Method. Experimental Mechanics, 2019, 59, 1203-1221.	1.1	11
38	On the decay of dispersive motions in the outer region of rough-wall boundary layers. Journal of Fluid Mechanics, 2019, 862, .	1.4	9
39	Pressure from 2D snapshot PIV. Experiments in Fluids, 2019, 60, 32.	1.1	31
40	Three dimensional wakes of freely falling planar polygons. Experiments in Fluids, 2019, 60, 1.	1.1	11
41	Turbulent Boundary Layers Over Multiscale Rough Patches. Boundary-Layer Meteorology, 2019, 172, 1-16.	1.2	8
42	Universal scaling law for drag-to-thrust wake transition in flapping foils. Journal of Fluid Mechanics, 2019, 872, .	1.4	25
43	Simultaneous skin friction and velocity measurements in high Reynolds number pipe and boundary layer flows. Journal of Fluid Mechanics, 2019, 871, 377-400.	1.4	28
44	Effects of vortex-induced velocity on the development of a synthetic jet issuing into a turbulent boundary layer. Journal of Fluid Mechanics, 2019, 870, 651-679.	1.4	16
45	A comparative study of the velocity and vorticity structure in pipes and boundary layers at friction Reynolds numbers up to. Journal of Fluid Mechanics, 2019, 869, 182-213.	1.4	14
46	Influence of internal orifice geometry on synthetic jet performance. Experiments in Fluids, 2019, 60, 1.	1.1	12
47	The instantaneous structure of secondary flows in turbulent boundary layers. Journal of Fluid Mechanics, 2019, 862, 845-870.	1.4	55
48	Laboratory experiments on the temporal decay of homogeneous anisotropic turbulence. Journal of Fluid Mechanics, 2019, 862, 99-127.	1.4	16
49	Study of the circularity effect on drag of disk-like particles. International Journal of Multiphase Flow, 2019, 110, 189-197.	1.6	10
50	Spatial characteristics of a zero-pressure-gradient turbulent boundary layer in the presence of free-stream turbulence. Physical Review Fluids, 2019, 4, .	1.0	5
51	Mechanisms of airfoil noise near stall conditions. Physical Review Fluids, 2019, 4, .	1.0	23
52	The Mean Velocity of the Near-Field of a Lab-Scale Wind Turbine in Tailored Turbulent Shear Flows. Springer Proceedings in Physics, 2019, , 317-322.	0.1	1
53	Using high resolution X-ray computed tomography to create an image based model of a lymph node. Journal of Theoretical Biology, 2018, 449, 73-82.	0.8	11
54	Characteristics of turbulent boundary layers over smooth surfaces with spanwise heterogeneities. Journal of Fluid Mechanics, 2018, 838, 516-543.	1.4	64

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55	Time evolution of uniform momentum zones in a turbulent boundary layer. Journal of Fluid Mechanics, 2018, 842, 554-590.	1.4	47
56	Spatialâ€"spectral characteristics of momentum transport in a turbulent boundary layer. Journal of Fluid Mechanics, 2018, 836, 599-634.	1.4	8
57	Turbulent Flow Over Large Roughness Elements: Effect of Frontal and Plan Solidity on Turbulence Statistics and Structure. Boundary-Layer Meteorology, 2018, 167, 99-121.	1.2	34
58	An alternative floating element design for skin-friction measurement of turbulent wall flows. Experiments in Fluids, 2018, 59, 1.	1.1	17
59	Trajectory of a synthetic jet issuing into high-Reynolds-number turbulent boundaryÂlayers. Journal of Fluid Mechanics, 2018, 856, 531-551.	1.4	16
60	Aerodynamic Performance of Electro-Active Acrylic Membrane Wings. AIAA Journal, 2018, 56, 4243-4260.	1.5	5
61	Near-wake characteristics of rigid and membrane wings in ground effect. Journal of Fluids and Structures, 2018, 80, 199-216.	1.5	20
62	Effect of Leading Edge serrations in reducing aerofoil noise near stall conditions. , 2018, , .		2
63	Robust features of a turbulent boundary layerÂsubjected to high-intensity free-stream turbulence. Journal of Fluid Mechanics, 2018, 851, 416-435.	1.4	13
64	Effect of length of two-dimensional obstacles on characteristics of separation and reattachment. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 178, 38-48.	1.7	25
65	Structure of high and low shear-stress events in a turbulent boundary layer. Physical Review Fluids, 2018, 3, .	1.0	14
66	Edge effects on the fluttering characteristics of freely falling planar particles. Physical Review Fluids, 2018, 3, .	1.0	19
67	Law of the wall for small-scale streamwise turbulence intensity in high-Reynolds-number turbulent boundary layers. Physical Review Fluids, 2018, 3, .	1.0	5
68	Characteristics of sources and sinks of momentum in a turbulent boundary layer. Physical Review Fluids, 2018, 3, .	1.0	2
69	Aerodynamic Step Input Response of Electro-Active Membrane Wings. , 2017, , .		1
70	Mean and Fluctuating pressure estimation from snapshots of planar PIV measurements. , 2017, , .		0
71	On the fluid-structure interaction of flexible membrane wings for MAVs in and out of ground-effect. Journal of Fluids and Structures, 2017, 70, 214-234.	1.5	33
72	Modelling high Reynolds number wallâ€"turbulence interactions in laboratory experiments using large-scale free-stream turbulence. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160091.	1.6	14

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73	Wind resource assessment in heterogeneous terrain. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160109.	1.6	5
74	Performance and mechanism of sinusoidal leading edge serrations for the reduction of turbulenceâ€"aerofoil interaction noise. Journal of Fluid Mechanics, 2017, 818, 435-464.	1.4	121
75	Effect of isolated roughness element height on high-speed laminarâ€"turbulent transition. Journal of Fluid Mechanics, 2017, 818, .	1.4	5
76	Establishment Times of Hypersonic Shock-Wave/Boundary-Layer Interactions in Intermittent Facilities. AIAA Journal, 2017, 55, 2875-2887.	1.5	7
77	Performance augmentation mechanism of in-line tandem flapping foils. Journal of Fluid Mechanics, 2017, 827, 484-505.	1.4	63
78	The four-flipper swimming method of plesiosaurs enabled efficient and effective locomotion. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20170951.	1.2	26
79	Tailoring incoming shear and turbulence profiles for labâ€scale wind turbines. Wind Energy, 2017, 20, 2021-2035.	1.9	15
80	Skin-friction measurements in a turbulent boundary layer under the influence of free-stream turbulence. Experiments in Fluids, 2017, 58, 1.	1.1	14
81	Entrainment effects in periodic forcing of the flow over a backward-facing step. Physical Review Fluids, 2017, 2, .	1.0	14
82	On the Interfoil Spacing and Phase Lag of Tandem Flapping Foil Propulsors. Journal of Ship Production and Design, 2017, 33, 276-282.	0.2	6
83	Effect of turbulence on the wake of a wall-mounted cube. Journal of Fluid Mechanics, 2016, 804, 513-530.	1.4	71
84	Vectoring of parallel synthetic jets: aÂparametricÂstudy. Journal of Fluid Mechanics, 2016, 804, 467-489.	1.4	17
85	Interactions of large-scale free-stream turbulence with turbulent boundary layers. Journal of Fluid Mechanics, 2016, 802, 79-107.	1.4	50
86	Development of turbulent boundary layers past a step change in wall roughness. Journal of Fluid Mechanics, 2016, 795, 494-523.	1.4	39
87	Interaction Layer Between a Turbulent Boundary Layer and Free-Stream Turbulence. Springer Proceedings in Physics, 2016, , 325-332.	0.1	0
88	Characterisation of drag and wake properties of canopy patches immersed in turbulent boundary layers. Journal of Fluid Mechanics, 2016, 798, 27-49.	1.4	43
89	Active Flow Control of a Turbulent Boundary Layer with Large-Window and Stereo-PIV. , 2016, , .		1
90	Aeromechanics of membrane and rigid wings in and out of ground-effect at moderate Reynolds numbers. Journal of Fluids and Structures, 2016, 62, 318-331.	1.5	35

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91	An assessment of the ship drag penalty arising from light calcareous tubeworm fouling. Biofouling, 2016, 32, 451-464.	0.8	65
92	Full-field pressure from snapshot and time-resolved volumetric PIV. Experiments in Fluids, 2016, 57, 1.	1.1	33
93	From Time to Space and Back: Convection and Wave Velocities in Turbulent Shear Flows. Springer Proceedings in Physics, 2016, , 47-54.	0.1	0
94	Concurrent Scale Interactions in the Far-Field of a Turbulent Mixing Layer. Springer Proceedings in Physics, 2016, , 55-58.	0.1	0
95	An Image-Based Model of Fluid Flow Through Lymph Nodes. Bulletin of Mathematical Biology, 2016, 78, 52-71.	0.9	32
96	Aero-electro-mechanical Coupling of Electro-Active Membrane Wings. , 2016, , .		1
97	On the Effects of Surface Morphology on the Structure of Wall-Turbulence. Springer Proceedings in Physics, 2016, , 149-154.	0.1	3
98	Coherent structures in transitional pipe flow. Physical Review Fluids, 2016, 1, .	1.0	11
99	Characteristics of Recirculation Regions on Ribs of Varying Length. Springer Proceedings in Physics, 2016, , 213-221.	0.1	0
100	The energy cascade in near-field non-homogeneous non-isotropic turbulence. Journal of Fluid Mechanics, 2015, 771, 676-705.	1.4	54
101	Effects of spanwise spacing on large-scale secondary flows in rough-wall turbulent boundary layers. Journal of Fluid Mechanics, 2015, 774, .	1.4	114
102	The evolution of large-scale motions in turbulent pipe flow. Journal of Fluid Mechanics, 2015, 779, 701-715.	1.4	45
103	Effects of frontal and plan solidities on aerodynamic parameters and the roughness sublayer in turbulent boundary layers. Journal of Fluid Mechanics, 2015, 782, 541-566.	1.4	61
104	Frequencyâ€“wavenumber mapping in turbulent shear flows. Journal of Fluid Mechanics, 2015, 783, 166-190.	1.4	27
105	Quantification and adjustment of pixel-locking in particle image velocimetry. Experiments in Fluids, 2015, 56, 1.	1.1	14
106	Toluene-based planar laser-induced fluorescence imaging of temperature in hypersonic flows. Experiments in Fluids, 2015, 56, 1.	1.1	11
107	Aspect-Ratio Effects on Aeromechanics of Membrane Wings at Moderate Reynolds Numbers. AIAA Journal, 2015, 53, 780-788.	1.5	44
108	Aeromechanics of Membrane Wings in Ground-Effect. , 2015, , .		6

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109	Geometrical influence on vortex shedding in turbulent axisymmetric wakes. Physics of Fluids, 2015, 27, .	1.6	29
110	Spectral scaling in boundary layers and pipes at very high Reynolds numbers. Journal of Fluid Mechanics, 2015, 771, 303-326.	1.4	95
111	Amplitude and frequency modulation of the small scales in a jet. Journal of Fluid Mechanics, 2015, 772, 756-783.	1.4	16
112	Micro vortex generator control of axisymmetric high-speed laminar boundary layer separation. Shock Waves, 2015, 25, 521-533.	1.0	22
113	Concurrent scale interactions in the far-field of a turbulent mixing layer. Physics of Fluids, 2014, 26, .	1.6	15
114	Effects of aspect ratio on fluid-structure interactions in membrane wings. , 2014, , .		3
115	Evolution of the velocity-gradient tensor in a spatially developing turbulent flow. Journal of Fluid Mechanics, 2014, 756, 252-292.	1.4	42
116	Aerodynamic performance of the feathered dinosaur Microraptor and the evolution of feathered flight. Nature Communications, 2013, 4, 2489.	5.8	56
117	Optimal mode decomposition for unsteady flows. Journal of Fluid Mechanics, 2013, 733, 473-503.	1.4	128
118	Leading- and trailing-edge effects on the aeromechanics of membrane aerofoils. Journal of Fluids and Structures, 2013, 38, 107-126.	1.5	53
119	Drag and near wake characteristics of flat plates normal to the flow with fractal edge geometries. Fluid Dynamics Research, 2013, 45, 061406.	0.6	38
120	Turbulent separation upstream of a forward-facing step. Journal of Fluid Mechanics, 2013, 724, 284-304.	1.4	69
121	Axisymmetric Turbulent Wakes with New Nonequilibrium Similarity Scalings. Physical Review Letters, 2013, 111, 144503.	2.9	83
122	Pressure from particle image velocimetry for convective flows: a Taylorâ€™s hypothesis approach. Measurement Science and Technology, 2013, 24, 024002.	1.4	41
123	Advances in 3D velocimetry. Measurement Science and Technology, 2013, 24, 020301.	1.4	8
124	The convection of large and intermediate scale fluctuations in a turbulent mixing layer. Physics of Fluids, 2013, 25, .	1.6	18
125	Effect of roughness-induced disturbances on axisymmetric hypersonic laminar boundary layer. , 2013, , .		9
126	Axisymmetric flare-induced separation of high-speed transitional boundary layers. , 2012, , .		11

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127	Amplitude and frequency modulation in wall turbulence. Journal of Fluid Mechanics, 2012, 712, 61-91.	1.4	154
128	Aeroacoustic Performance of Fractal Spoilers. AIAA Journal, 2012, 50, 2695-2710.	1.5	32
129	Particle image velocimetry study of fractal-generated turbulence. Journal of Fluid Mechanics, 2012, 711, 306-336.	1.4	97
130	Denoising of time-resolved PIV for accurate measurement of turbulence spectra and reduced error in derivatives. Experiments in Fluids, 2012, 53, 1561-1575.	1.1	24
131	Experimental estimation of fluctuating velocity and scalar gradients in turbulence. Experiments in Fluids, 2012, 53, 925-942.	1.1	34
132	Aero-Acoustic Performance of Fractal Spoilers. , 2011, , .		3
133	PIV measurements of convection velocities in a turbulent mixing layer. Journal of Physics: Conference Series, 2011, 318, 052038.	0.3	6
134	Three-dimensional conditional structure of a high-Reynolds-number turbulent boundary layer. Journal of Fluid Mechanics, 2011, 673, 255-285.	1.4	143
135	The effects of resolution and noise on kinematic features of fine-scale turbulence. Experiments in Fluids, 2011, 51, 1417-1437.	1.1	36
136	The interaction between strain-rate and rotation in shear flow turbulence from inertial range to dissipative length scales. Physics of Fluids, 2011, 23, 061704.	1.6	17
137	Investigation of turbulent separation in a forward-facing step flow. Journal of Physics: Conference Series, 2011, 318, 022031.	0.3	8
138	Amplification of enstrophy in the far field of an axisymmetric turbulent jet. Journal of Fluid Mechanics, 2010, 651, 483-502.	1.4	58
139	The Classification and Composition of Fine Scale Eddies in a Turbulent Jet. , 2009, , .		2
140	Characteristics of the Lamb Vector in the Outer Region of a Turbulent Boundary Layer. , 2009, , .		0
141	Low-frequency dynamics of shock-induced separation in a compression ramp interaction. Journal of Fluid Mechanics, 2009, 636, 397-425.	1.4	180
142	Investigation of three-dimensional structure of fine scales in a turbulent jet by using cinematographic stereoscopic particle image velocimetry. Journal of Fluid Mechanics, 2008, 598, 141-175.	1.4	111
143	Statistical structure of momentum sources and sinks in the outer region of a turbulent boundary layer. Journal of Fluid Mechanics, 2008, 606, 225-237.	1.4	12
144	Statistical properties of streamwise velocity in a supersonic turbulent boundary layer. Physics of Fluids, 2007, 19, .	1.6	22

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145	Effects of Upstream Coherent Structures on Low-Frequency Motion of Shock-Induced Turbulent Separation. , 2007, , .		18
146	Effects of upstream boundary layer on the unsteadiness of shock-induced separation. Journal of Fluid Mechanics, 2007, 585, 369-394.	1.4	276
147	Determination of complete velocity gradient tensor by using cinematographic stereoscopic PIV in a turbulent jet. Experiments in Fluids, 2007, 42, 923-939.	1.1	81
148	Cinematographic Stereoscopic PIV of a Turbulent Jet: Assessment of Accuracy of 3D Derived Quantities. , 2006, , .		0
149	Planar imaging measurements to study the effect of spanwise structure of upstream turbulent boundary layer on shock induced separation. , 2006, , .		16
150	Experiments in Unsteady Forcing of Mach 2 Shock Wave/Boundary Layer Interactions. , 2006, , .		12
151	Large-scale motions in a supersonic turbulent boundary layer. Journal of Fluid Mechanics, 2006, 556, 271.	1.4	152
152	Experimental investigation of vortex properties in a turbulent boundary layer. Physics of Fluids, 2006, 18, 055105.	1.6	73
153	Dual-plane PIV technique to determine the complete velocity gradient tensor in a turbulent boundary layer. Experiments in Fluids, 2005, 39, 222-231.	1.1	102
154	Investigation of large-scale coherence in a turbulent boundary layer using two-point correlations. Journal of Fluid Mechanics, 2005, 524, 57-80.	1.4	214
155	Cinematographic Planar Imaging of a Mach 2 Shock Wave/Turbulent Boundary Layer Interaction. , 2005, , .		8
156	Characteristics of vortex packets in turbulent boundary layers. Journal of Fluid Mechanics, 2003, 478, 35-46.	1.4	408
157	Effective visualization of stereo particle image velocimetry vector fields of a turbulent boundary layer. Journal of Turbulence, 2003, 4, .	0.5	3
158	Investigation of three dimensionality in the near field of a round jet using stereo PIV. Journal of Turbulence, 2002, 3, N16.	0.5	15
159	Effectively visualizing multi-valued flow data using color and texture. , 0, , .		46
160	Interactive Poster: Illustrating Different Convection Velocities of Turbulent Flow. , 0, , .		1